

REQUEST FOR SEALED BID

**City of Martinsville
P. O. BOX 1112
Martinsville, Va. 24114-1112**

FAXES AND EMAILS NOT ACCEPTED

**REPLY TO: Karen Mays, Purchasing Manager
Robin Legus, Senior Buyer**

**For inquiries only: rlegus@ci.martinsville.va.us
kmays@ci.martinsville.va.us**

This is an inquiry not an order. Please attach this price with any submittals. The City of Martinsville reserves the right to accept or reject any and all bids, to purchase any part of the whole of items bid upon, to waive all informalities, and to award this bid as determined to be the most advantageous to the City.

If this is a sealed bid, all bids must be hand delivered to the Central Warehouse, 990 Fishel Street, Martinsville, VA 24112-3248 or mailed to the P.O. Box 1112 address listed

Bids are subject to the City's Purchasing Manual and Virginia Public Procurement Act.

Issue Date: 03/15/2016		Reply Not later Than: 03/30/2016 @ 2:00 p.m.		Date Delivery Requested:	
1. Irby			4. Martini & Associates		
2. Anixter			5. National Transformer Sales		
3. Graybar			6. Wesco 7. Gexpro		
Quantity	Description	Unit Price	Amount		
	Sealed bids will be received until 2:00 p.m. on Wednesday				
	March 30, 2016, by the City of Martinsville Purchasing				
	Department to contract with a firm for the purchase of				
	the following:				
4 Each	50KVA Padmount Transformer, Single Phase, 7200/12470,				
	120/240, as per bid specifications.				
3 Each	250KVA Conventional Pole Mount Transformer, Single				
	Phase, 7200 Stepdown 12470/2400V, Wye, as per bid				
	specifications.				
4 Each	25KVA Padmount Transformer, Single Phase, 7200/12470,				
	120/240, as per bid specifications.				
	Quote F.O.B. Martinsville, VA. Freight prepaid and				
	allowed.				
	Acceptable brands are GE, Cooper, Howard, ABB,				
	Kuhlman, Howard and Central Maloney.				
****	All information must be completed for each size				
	transformer on loss data sheet that is provided for you				
	to be eligible for this bid.				
Point of Shipment:		FOB: MARTINSVILLE, VA		Promised Delivery Date:	
		Freight Prepaid and Allowed			
Terms:	Quotation date:	Authorized Signature:			

REQUEST FOR SEALED BID

**City of Martinsville
P. O. BOX 1112
Martinsville, Va. 24114-1112**

FAXES AND EMAILS NOT ACCEPTED

**REPLY TO: Karen Mays, Purchasing Agent
Robin Legus, Purchasing Technician**

**For inquiries only: rlegus@ci.martinsville.va.us
kmays@ci.martinsville.va.us**

This is an inquiry not an order. Please attach this page with any submittals. The City of Martinsville reserves the right to accept or reject any and all bids, to purchase any part of the whole of items bid upon, to waive any informalities, and to award this bid as determined to be the most advantageous to the City.

If this is a sealed bid, all bids must be hand delivered to the Central Warehouse, 990 Fishel Street, Martinsville, VA 24112-3248 or mailed to the P.O. Box 1112 address listed

Bids are subject to the City's Purchasing Manual and Virginia Public Procurement Act.

Issue Date: 03/15/2016		Reply Not later Than: 03/30/2016 @ 2:00 p.m.		Date Delivery Requested:	
1.		4.			
2.		5.			
3.		6.			
Quantity	Description	Unit Price	Amount		
	Sealed bid will be received in the office of the Senior				
	Buyer, Robin Legus, Central Warehouse, 990 Fishel				
	Street, Martinsville, VA. 24112-3248. You may send				
	your bid to the Fishel Street address by FedEx, UPS or				
	in person or by Parcel Post.				
	Please place in the lower left corner of the envelope				
	"Transformers" and the bid opening date.				
	The City reserves the right to purchase as a whole or				
	separately.				
	The City reserves the right to accept or reject any and				
	all bids, to purchase any part of the whole of items bid				
	upon, to waive any informalities, and to award this bid				
	as determined to be the most advantageous to the City.				
	Please give you delivery schedule for each transformer				
	size.				
	For more information contact Daniel Morrison @				
	276-252-7675.				
Point of Shipment:		FOB: MARTINSVILLE, VA		Promised Delivery Date:	
		Freight Prepaid and Allowed			
Terms:	Quotation date:	Authorized Signature:			

Specifications

Single Phase Pad-Mount Transformer

General

All characteristics, definitions, and terminology, except as specifically covered in this specification, shall be in accordance with the latest revision of the following ANSI and NEMA

C57.12.00 IEEE Standard General Requirements for Liquid-Immersed Distribution, Power and Regulating Transformers.

C57.12.25 Pad-Mounted, Compartmental-Type, Self-Cooled Single-Phase Distribution Transformers with Separable Insulated High-Voltage Connections; High-Voltage, 34500GrdY/19920 Volts and Below; Low Voltage 240/120 Volts; 167 kVA and Smaller-Requirements.

C57.12.28 – Pad-Mounted Equipment – Enclosure Integrity

C57.12.35 – Bar Coding for Distribution Transformers

C57.12.90 – IEEE Standard Test Code for Liquid-Immersed Distribution, Power and Regulating Transformers and IEE Guide for Short-Circuit Testing of Distribution and Power Transformers.

C57.12.91 – Guide for Loading Mineral-Oil-Immersed Overhead and Pad-Mounted Transformers Rated 500 kVA and less with 65 Degree C Average Winding Rise.

- **Each distribution transformer shall be equipped with a non-resettable device which detects and provides external indication of internal transformer faults. This device also incorporates a pressure relief valve. The approved device is manufactured by IFC Corporation or approved equal.**

Type: Single Phase 60 Hz, Dead-Front, Oil Insulated, Self-Cooled, Loop Feed, Low Profile, Pad Distribution Mounted Transformer

Primary Voltage: 12470GrdY/7200 Volt 95 kV BIL
Rated 8.3 kV Phase to Ground

Secondary Voltage: 240/120 volt 30 kV BIL

Switches and no-load tap changers:

1. Transformer shall be equipped with full capacity high voltage taps. The tap changers shall be clearly marked to reflect that the transformer must be de-energized before operating the tap changers as required by Section 3.2.1 of ANSI C57.12.25.
2. The units shall be configured for four – 2 ½ % taps below rated voltage.
3. Bay-O-Net style removable fuse shall be provided for protection of transformer. Fusing recommendations for 12 kV shall be clearly stated on name plate.

Primary bushings

1. All units shall be loop feed and dead front. The high voltage bushings shall be externally clamped High temperature Nylon (HPN) bushing wells. These wells shall be removable to allow for field replacement of the bushings without opening the tank.
2. ANSI Type 2 bushing configuration. Feed through design.
3. A cable accessory parking stand shall be provided and shall be located such that the separable insulated connectors that are designed for operation after the transformer is placed in service can be operated with hot-line tools.

4. 200 Amp Load break busing inserts installed in bushing wells.
5. The primary connection shall include an oil immerse primary fuse and single-phase primary load break switch. Transformers shall also be equipped with a secondary circuit breaker.

Low Voltage bushings and terminals

1. The configuration of the secondary shall be per ANSI C57.12.25 Figure 2A (This specifies an angled bushing pattern or ANSI Type II unit). These bushings shall be removable to allow for field replacement without opening the tank.
2. Secondary bushings to be supplied with removable 6 outlet set screw bar installed on threaded studs. Homac Cat. Number ABW6500 or equivalent.

Primary windings shall be copper and Secondary windings shall be Aluminum.

Tank and terminal compartment

1. In addition to the regular locking provisions all access doors or hood shall be secured by a recessed, captive, pentahead bolt that meets the dimensions set forth in RUS Drawing A3759.
2. The transformer shall be sealed than k construction of sufficient strength to withstand a pressure of 7 psig without permanent distortion, and 15 psig without rupture or affecting cabinet security.
3. Tank shall include a pressure relief device as a means to relieve pressure in excess of pressure resulting from normal operation. The venting and sealing characteristics shall be as follows:
 - Cracking pressure 10 psig +/- 2psig
 - Resealing Pressure 6 psig minimum
 - Zero leakage from reseal pressure to -8 psig
 - Flow at 15 psig
4. Tank coating shall meet all requirements on ANSI C57.28 including
 - Salt Spray test
 - Crosshatch Adhesion Test
 - Humidity Test
 - Impact Test
 - Oil Resistance Test
 - Ultraviolet Accelerated Weathering Test
 - Abrasion Resistance – Taber Abraser
5. The pad-mounted equipment shall meet the requirements for tamper resistance set forth in ANSI C57.12.28 including the pry, pull, test, and wire probe test
6. KVA rating of transformer shall be clearly printed on the outside of the transformer case with 3 inch minimum height lettering.
7. A copy of the name plate shall be attached to the outside of the transformer case.

Testing

All units are subject to routine tests as prescribed in ANSI C57.12.00. In addition, impedance and voltage and load loss tests are considered to be routine.

Distribution Transformer Specifications

General

All characteristics, definitions, and terminology, except as specifically covered in this specification, shall be in accordance with the latest revision of the following ANSI and NEMA standards.

C57.12.00 - IEEE Standard General Requirements for Liquid-Immersed Distribution, Power and Regulating Transformers.

C57.12.20 – Overhead Type Distribution Transformers, 500 KVA and Smaller, High Voltage, 34500 Volts and Below: Low Voltage, 7970 / 13800 Y Volts and Below.

C57.12.35 – Bar Coding for Distribution Transformers

C57.12.90 – IEEE Standard Test Code for Liquid-Immersed Distribution, Power and Regulating Transformers and IEEE Guide for Short-Circuit Testing of Distribution and Power Transformers.

C57.12.91 – Guide for Loading Mineral Oil Immersed Overhead and Pad-Mounted Transformers Rated 500 KVA and Less with 55 Degree C or 65 Degree C Average.

Type: Single Phase 60 Hz, Oil Insulated, Self- Cooled, Pole Mountable Distribution Transformer

Primary Voltage: 12470 GRD Y/7200 Volts, 95 KV BIL

Secondary Voltage: 120/240 Volt 30 KV BIL

No-load Tap Changer: Should be furnished with two-2-1/2% full rated taps below rated high voltage
and two 2-1/2% full rated taps above rated high voltage.

Primary bushings: Two top mounted porcelain bushings, insulated for 12,470 volts

Windings: Primary windings shall be copper.
Impedance shall be between 1.9 and 2.5 percent based on nameplate rating

Transformer shall have the KVA rating in 2-1/2" high figures stenciled in contrasting colors on two sides of the transformer. One marking shall be located beneath the secondary bushings and the other located diametrically opposite.

Tank

1. The tank shall be provided with a stainless cover ring loop and stainless steel bolts. A bronze nut shall be provided to eliminate corrosion problems and avoid galling.
2. Standard accessories as specified by ANSI C57.12.20
 - Support Lugs (Mounting Brackets) centered beneath the high voltage bushings
 - Internal Liquid Level Marking
 - Lifting Lugs
 - Pressure Relief Device (35 scfm flow rate)
 - Instructional Nameplate
 - Tank Grounding Provisions
 - Low Voltage Grounding Provisions
 - Lightning Arrester Mounting Provisions
3. Tanks coating shall meet all requirements of **ANSI C57.28** including
 - Salt Spray test
 - Crosshatch Adhesion Test
 - Humidity Test
 - Impact Test
 - Oil Resistance Test
 - Ultraviolet Accelerated Weathering Test
 - Abrasion Resistance – Taber Abraser

Testing

All units are subject to routine tests as prescribed in **ANSI C57.12.00**. In addition, impedance, voltage and load loss tests are considered to be routine.

Note: The words NON-PCB Less Than 1PPM, must be engraved in the nameplate.

- **Each distribution transformer shall be equipped with a non-resettable device which detects and provides external indication of internal transformer faults. This device also incorporates a pressure relief valve. The approved device is manufactured by IFC Corporation or approved equal.**

LOSS DATA TO BE COMPLETED BY BIDDER

Loss Data Information

<u>Manuf.</u>	<u>KVA</u>	<u>QTY</u>	<u>PP</u>	<u>TNLL</u> <u>In Watts</u> @ 85 C	<u>TLL</u> <u>In Watts</u> @ 85 C	<u>Evaluated</u> <u>Cost</u>
_____	_____	_____	\$_____	+\$ (3.00 x _____)	+\$ (1.00 x _____)	= _____
_____	_____	_____	\$_____	+\$ (3.00 x _____)	+\$ (1.00 x _____)	= _____
_____	_____	_____	\$_____	+\$ (3.00 x _____)	+\$ (1.00 x _____)	= _____
Total Purchase Price				Total Cost of Ownership		
\$ _____				\$ _____		

ADDITIONAL COMMENTS, EXPLANATIONS, OR EXCEPTIONS

<u>Manuf.</u>	<u>KVA</u>	<u>% 1X</u>	<u>%Z</u> <u>@ 85 C</u>	<u>Total</u> <u>Losses @ 85 C</u>	<u>Weight</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Bidder

Title

Date

By _____

NEGOTIATION

In the event the bid from the lowest responsible bidder exceeds available funds, the City may negotiate with the apparent low bidder to obtain a contract price within available funds. The procedures for such negotiations shall be as follows:

a. City, Engineer, and apparent low bidder together will review the project and attempt to find mutually agreeable proposed changes that will effectively reduce the cost of the project.

b. Apparent low bidder will present reasonably documented and substantiated proposed deductions in project cost for each potential project change, which will allow City to evaluate each proposed deduction.

c. The parties will attempt to negotiate and sign a reasonable contract for the entire project, the price of which does not exceed available funds.